

JMPS version 2.0

Naval User Requirements Capture Process





Scope of Effort...

C3

- Early Warning
- Air Control
- Surface Control
- Communications Management
- Take Charge and Move Out (TACAMO)

COUNTER AIR

- Offensive Counter Air
- Defensive Counter Air

INTERDICTION

- Close Air Support (CAS)
- Forward Air Control (FAC)
- Strike Coordination and Reconnaissance (SCAR)
- Surface Warfare
- Maritime Air Support
- Suppression of Enemy Air Defenses (SEAD)
- Deep Air Strike (DAS)

SAR/CSAR

- Search and Rescue
- Combat Search and Rescue

AERIAL REFUELING

EXPEDITIONARY OPS

- Assault Support
- Offensive Air Support
- Control of Aircraft and Missiles
- Electronic Warfare
- Reconnaissance and UAVs
- Anti-Air Warfare

ELECTRONIC WARFARE

- Information Warfare
- Electronic Warfare
- Electronic Attack
- Electronic Protection
- Electronic Surveillance

AIR/SEA/LAND DELIVERY

- Airdrop
- Air-Landed Passengers
- Air Movement
- Air Supply (VERTREP/VOD)
- Medical Evacuation (MEDEVAC)

RECONNAISSANCE

- Tactical Air (TACAIR)
- Tactical Air Reconnaissance Pod (TARPS)
- Advanced Tactical Airborne Reconnaissance System (ATARS)
- Shared Reconnaissance Pod (SHARP)

TRAINING

- Training (TRACOM level Helo/ Prop/ Jet)

MARITIME

- Under Sea Warfare (USW)
- Surface Warfare (SUW)
- Mine Warfare (MIW)
- Mine Counter Measures (MCM)

SPECIAL OPERATIONS

- Maritime Special Operations
- Direct Action
- Special Reconnaissance
- Foreign Internal Defense
- Unconventional Warfare
- Combating Terrorism
- Coalition Support
- Combat Search and Rescue
- Counter Drug Activities
- Humanitarian Assistance
- Security Assistance



Overall Requirements Process

Requirements Process

Collect Data

Analyze Data

Rank Requirements

Navy
USMC

Continuous Communication

Combine Analysis & Ranking

Recommend JMPS Requirements

JRB Requirements

Validation

SSS

Collect Data

Analyze Data

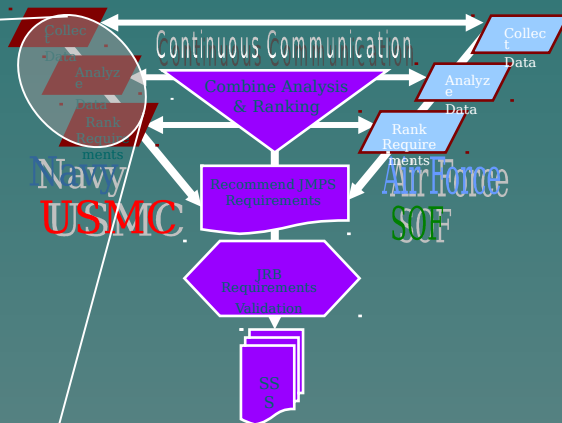
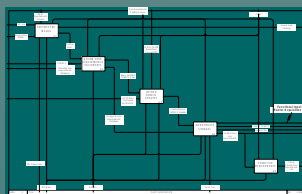
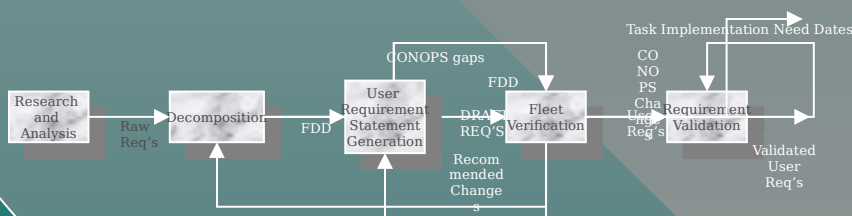
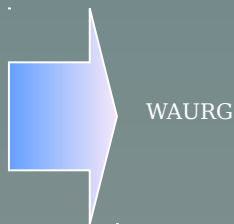
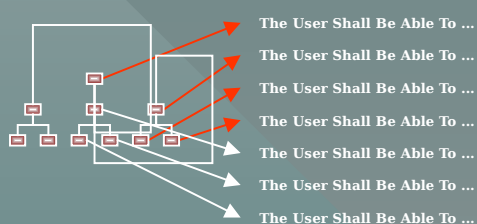
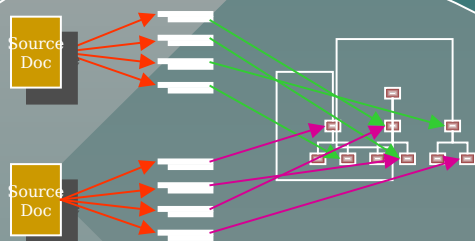
Rank Requirements

Air Force
SOF

SSS: System
Subsystem
Specification



Greater Level of Detail to Naval Requirements Capture





JMPS v2 Naval User Requirements Capture Process

- **Five major steps to completion:**
 - Research and Analysis
 - Decomposition of Combat Mission Planning Tasks
 - User Requirement Statements Generation
 - Fleet Verification
 - Requirements Validation



Research
and
Analysis

Task
Decomposition

User
Requirement
Statement
Generation

Fleet
Verification

Requirement
Validation

- Documentation is collected for Warfare Area*
 - CONOPS, Fleet messages, after action reports, design analyses, etc...
 - Initial WAG meetings held
- Docs are imported into DOORS*
- Docs are analyzed for mission planning related requirements
- Pertinent entries are marked as requirements
- Links from requirement to source doc are automatically established

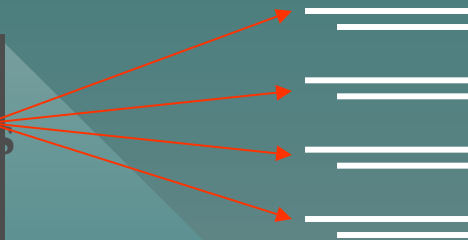


Naval User Requirements Capture Process

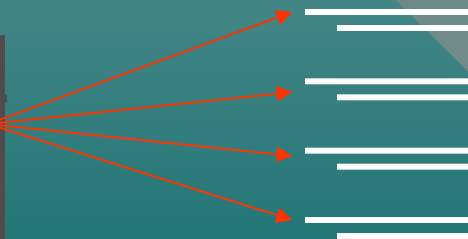
Source
Documentati
on

Extracted User
Need
Statements

CONOPS



FLEET
MSG



Links to Source
Docs maintained
in DOORS



Research
and
Analysis

Raw
Req's

Task
Decomposition

User
Requirement
Statement
Generation

Fleet
Verification

Requirement
Validation

- Marked requirements are “mapped” into a generic task decomposition diagram (TDD)
 - generic TDD is based on the CONOPS v2 Main Body...
- Gaps in current CONOPS are graphically identified
- Descriptive notes are entered for each task block of the TDD



Naval User Requirements Capture Process (cont)

Source
Documentati
on

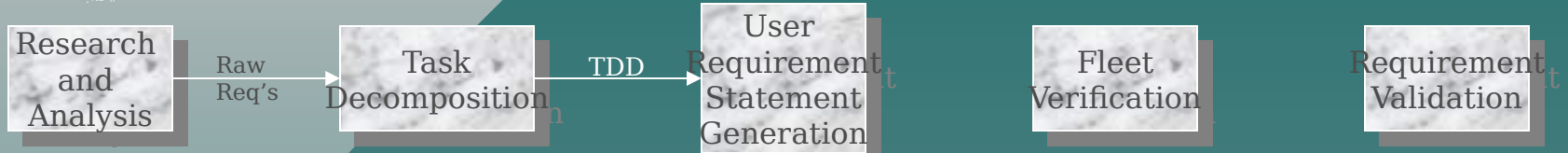
Extracted User
Need
Statements

Task
Decompositio
n Diagram



Links to Source
Docs maintained
in DOORS

Need Statements are
grouped by common
task...

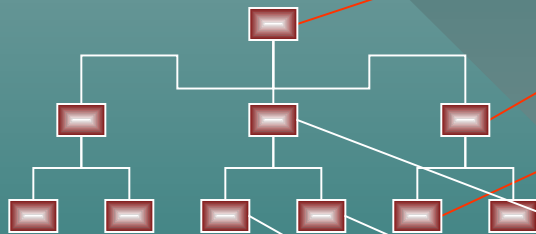


- Task statements from the TDD are imported into the DOORS database as informal User Requirements
 - hundreds of entries from diverse sources are now organized by common task
- Entries are then formatted as formal User Requirement Statements
- Links back to original source docs are maintained



Naval User Requirements Capture Process (cont)

Task Decomposition Diagram



Generated
Formal
User
Requirement
Statements

The User Shall Be Able To ...

The User Shall Be Able To

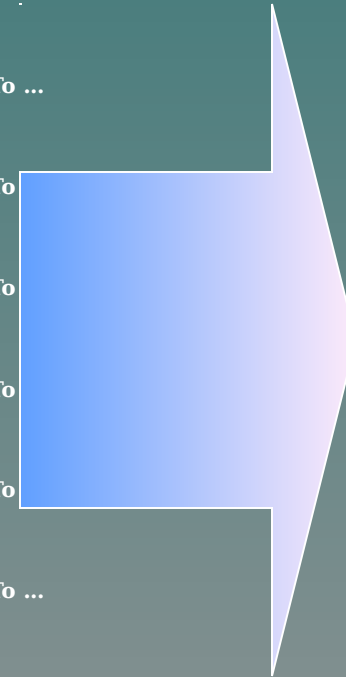
The User Shall Be Able To

The User Shall Be Able To

The User Shall Be Able To

The User Shall Be Able To ...

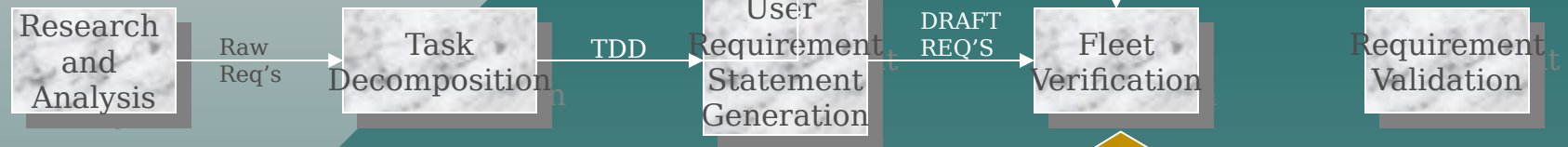
The User Shall Be Able To ...



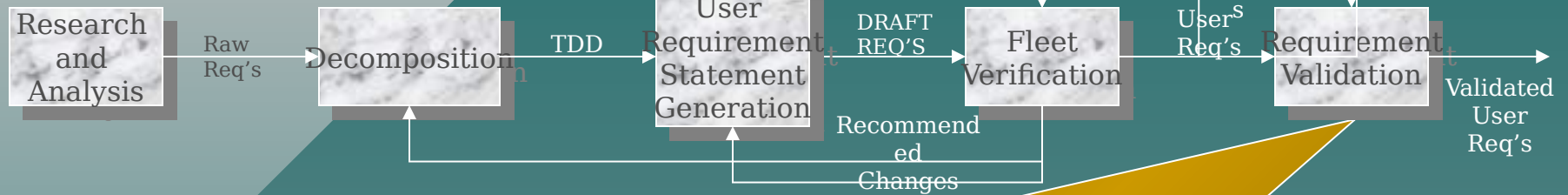
WAURG

Desired mission planning
tasks are now
systematically grouped by
common tasks...

Links back to source docs
are maintained throughout
the process



- Conduct the Warfare Area User Requirements Group (WAURG) conference
 - Composed of members from Fleet, PMAs, Centers of Excellence, School Commands, Testing, System Engineering, Risk and Q/A
- WAURG will:
 - review the TDD & the draft User Requirement Statements (with source links) and make change recommendations
 - author CONOPS updates as needed
 - recommend a categorized set of User Requirement Statements
- Changes will be incorporated to the TDD, CONOPS and URdb



Sponsors will:

- Review the set of WAURG verified User Requirement Statements and the WAURG's recommended categorization
- Perform a ranking of requirements based on guidance and budget
- Present User Requirement Statements to the JRB as a series of "Statements of Operational Intent" (SOIs)
- Review recommended changes to the CONOPS



What's Been Done So Far?

- Built a “first cut” TDD
- Gathered 21 source docs of varying utility
- Analyzed and mapped what we think are valid Maritime user needs to the TDD
- Built a requirements database
- Established links between the source docs and the task statements
- Reached a point where we need to get the experts to verify our work and add validity to the model and the products



Our Expectations of You

- Break into working groups by community
 - Elect a spokesman for your community
- Check our work and identifying missing requirements and source documents
- Provide “Stamp of Approval” (validate) to the products for presentation to PMA-233
- Identify common mission planning tasks as a Maritime Warfare group
- Agree to a set of rules and categorize your user requirements
- Give us an assessment of this prototype effort